Amendment to the Claims:

The following listing of claims replaces all previous versions and listings of claims:

Listing of Claims:

1. (currently amended) A computer-based method for a multiparty electronic service, the method comprising steps of:

negotiating a machine interpretable service specification between all parties, which would cooperate with a particular application running on a host system; defining said service specification to:

identify cooperating parties;

identify a requestor and format of a service request, said request is adapted to contain information about an individual who is not a party to the machine-interpretable service specification;

conduct conditional processing steps required for said service request, said conditional processing steps is adapted to use stored data about said individual; and

provide conditional notifications, said notifications is adapted to include additional information about the individual described in the request;

providing a secure computation environment in said host system; uploading said service specification into said secure computation environment; enforcing said service specification with regards to all cooperating parties;

receiving a service request from said requestor;

providing a secure co-processor in said secure computation environment for processing said service request, where said secure processing includes:

determining the service specification that governs said service request;

validating the actual requestor and the content of the service request against an expected requestor and expected contents as defined in the service specification; and

executing the conditional processing and the notifications as defined in the service specification.

2. (original) The method of claim 1 further comprising the step of allowing at least one party of said cooperating parties to cancel said service specification wherein all future service requests that rely on said cancelled service specification will be rejected.

3. (original) The method of claim 2 wherein said steps of negotiating a machine interpretable service specification, uploading, enforcing, receiving a service request, and canceling said service specification comprises the step of conducting said previous steps multiple times.

4. (original) The method of claim 1 further comprising the steps of:

negotiating multiple machine interpretable service specifications; defining said multiple service specifications;

uploading said multiple service specifications into said secure computation environment; and

enforcing said multiple service specifications with regards to all cooperating parties.

5. (original) The method of claim 4 wherein said secure processing steps further comprises the step of having at least one of said secure processing steps being executed unconditionally.

6. (original) The method of claim 1 wherein said secure processing steps further comprises the step of having at least one of said secure processing steps use data provided in

said service request and found in said host system to derive further information about said individual described in said service request.

7. (original) The method of claim 6 wherein said at least one of said secure processing steps further comprises the step of computing a correlation between biometric data provided in said service request and biometric data looked up in said host system.

8. (original) The method of claim 1 wherein said step of providing conditional notifications further comprises the step of providing an empty message.

9. (original) The method of claim 1 wherein said step of negotiating a machine interpretable service specification between all parties further comprises the step of providing a contract for governing the negotiated service specification.

10. (original) The method of claim 1 wherein said secure processing steps further comprises the step of notifying said requestor that said service request was processed.

11. (original) The method of claim 1 wherein said step of enforcing said service specification further comprises the step of uploading at least one database from at least one party of said cooperating parties, information contained therein from said at least one database is stored in said host system.

12. (original) The method of claim 4 wherein said step of negotiating multiple machine interpretable service specifications between any cooperating parties further comprises the step of providing a contract for governing each negotiated service specification.

13. (original) The method of claim 1 wherein said step of providing conditional notifications further comprises the step of providing a notification that is adapted to contain information about said individual.

14. (original) The method of claim 13, wherein said step of providing a notification that is adapted to contain information about said individual further comprises the step of providing said notification to at least one party of said cooperating parties, said at

least one party of said cooperating parties is a party other than said requestor.

15. (original) The method of claim 14, wherein said step of providing a notification to at least one party of said cooperating parties that is adapted to contain information about said individual further comprises the step of providing notification to said at least one party of said cooperating parties that is a party other than a provider of said stored data.

16. (original) The method of claim 1 wherein said step of providing conditional notifications further comprises the step of providing a notification to at least one party of said cooperating parties that is adapted to contain no information about said individual.

17. (currently amended) Apparatus for a multiparty electronic service, the apparatus comprising:

at least one host computer adapted to have at least one secure co-processor operating in a secure computation environment, said at least one host computer operative to:

negotiate a machine interpretable service specification between all parties, which would cooperate with a particular application running on said host computer;

upload said service specification into said secure computation environment;

enforce said service specification with regards to all cooperating parties;

receive a service request from a requestor, the service request being adapted to contain information about an individual who is not a party to the machine interpretable service specification;

execute secure processing of said service request; and provide notifications as defined in the service specification.

18. (currently amended) The apparatus of claim 17, wherein said at least one host computer is further operative to define said service specification to:

identify said cooperating parties;

identify said requestor and the format of said service request, ~~said request is adapted~~ to contain ~~information about an individual~~;

conduct conditional processing steps required for said service request, said conditional processing steps is adapted to use stored data about said individual; and

provide conditional notifications, said conditional notifications is adapted to include additional information about the individual described in the request.

19. (original) The apparatus of claim 17 wherein said at least one host computer is further operative to execute said secure processing to:

determine the service specification that governs said service request; validate said requestor and the content of the service request against an expected requestor and expected contents as defined in the service specification; and

execute conditional processing as defined in the service specification.

20. (original) The apparatus of claim 17 wherein said at least one host computer is further operative to provide said notifications as conditional notifications that is adapted to include additional information about an individual described in the request.

21. (original) The apparatus of claim 17 wherein said at least one host computer is further operative to provide a contract for governing the negotiated service specification.

22. (original) The apparatus of claim 17 wherein said at least one host computer operative to negotiate said machine interpretable service specification, upload said service specification, enforce said service specification, and receive a service request, is further operative to conduct said negotiating, uploading, enforcing and receiving functions multiple times.

23. (original) The apparatus of claim 17 wherein said at least one host computer is further operative to use data provided in said service request and found in said host computer to derive further information about an individual described in said service request.

24. (original) The apparatus of claim 23 wherein said at least one host computer is further operative to compute a correlation between biometric data provided in said service request and biometric data looked up in said host computer.

25. (original) The apparatus of claim 17 wherein said at least one host computer is further operative to compute a correlation between biometric data provided in said service request and biometric data looked up in said host computer.

26. (original) The apparatus of claim 17 wherein said at least one host computer operative to provide notifications is further operative to provide an empty message.

27. (original) The apparatus of claim 17 wherein said at least one host computer is further operative to upload at least one database from at least one party of said cooperating parties, information contained therein from said at least one database is adapted to be stored in said host computer.

28. (original) The apparatus of claim 17 wherein said at least one host computer operative to negotiate a machine interpretable service specification between all parties is further operative to:

negotiate multiple machine interpretable service specifications;

define said multiple service specifications;

upload said multiple service specifications into said secure computation environment; and

enforce said multiple service specifications with regards to all cooperating parties.

29. (original) The apparatus of claim 17 wherein said at least one host computer operative to provide notifications is further operative to notify said requestor that said service request was processed.

30. (original) The apparatus of claim 27 wherein said at least one host computer operative to provide notifications is further operative to provide conditional notifications that is adapted to contain information about an individual.

31. (original) The apparatus of claim 18 wherein said at least one host computer is further operative to provide said conditional notifications to another party of said cooperating parties, said another party of said cooperating parties is a party other than said requestor.

32. (currently amended) The apparatus~~method~~ of claim 31, wherein said at least one host computer operative to provide said conditional notifications to said another party of said cooperating parties is further operative to provide said conditional notifications to a party other than a provider of said stored data.

33. (currently amended) An identification apparatus for matching individuals, the apparatus comprising:

at least one host computer adapted to have at least one secure co-processor operating in a secure computation environment, said at least one host computer operative to:

negotiate a machine interpretable contract between all parties, which would cooperate with a particular application running on said host computer;

upload said contract into said secure computation environment;

enforce said contract with regards to all cooperating parties;

receive a service request from a requestor, the service request being adapted to contain information about an individual who is not a party to the machine interpretable contract;

execute secure processing of said service request; and provide notifications as defined in the contract.

34. (currently amended) An article of manufacture for use in a multiparty electronic service, comprising a machine readable medium tangibly embodying a program of instructions executable by a machine for implementing a method, the method comprising steps of:

negotiating a machine interpretable service specification between all parties, which would cooperate with a particular application running on a host system; defining said service specification to:

identify cooperating parties;

identify a requestor and format of a service request, said request is adapted to contain information about an individual who is not a party to the machine interpretable service specification;

conduct conditional processing steps required for said service request, said conditional processing steps is adapted to use stored data about said individual; and

provide conditional notifications, said notifications is adapted to include additional information about the individual described in the request;

providing a secure computation environment in said host system;

uploading said service specification into said secure computation environment;

enforcing said service specification with regards to all cooperating parties;

receiving a service request from said requestor;

providing a secure co-processor in said secure computation environment for

processing said service request, where said secure processing includes:

determining the service specification that governs said service request; validating the actual requestor and the content of the service request against an expected requestor and expected contents as defined in the service specification; and

executing the conditional processing and the notifications as defined in the service specification.

35. (currently amended) A program storage device readable by a machine, tangibly embodying a program of instructions executable by the machine to perform methods steps for managing a matching identification service, the method comprising the steps of:

negotiating a machine interpretable service specification between all parties, which would cooperate with a particular application running on a host system;

defining said service specification to:

identify cooperating parties;

identify a requestor and format of a service request, said request is adapted to contain information about an individual who is not a party to the machine interpretable service specification;

conduct conditional processing steps required for said service request, said conditional processing steps is adapted to use stored data about said individual; and

provide conditional notifications, said notifications is adapted to include additional information about the individual described in the request;

providing a secure computation environment in said host system; uploading said service specification into said secure computation environment; enforcing said service specification with regards to all cooperating parties;

receiving a service request from said requestor;

providing a secure co-processor in said secure computation environment for processing said service request, where said secure processing includes:

determining the service specification that governs said service request;

validating the actual requestor and the content of the service request against an expected requestor and expected contents as defined in the service specification; and

executing the conditional processing and the notifications as defined in the service specification.

36. (currently amended) A multiparty electronic service method comprising the steps of:

providing at least one host computer adapted to have at least one secure coprocessor operating in a secure computation environment;

operating said at least one host computer to negotiate a machine interpretable service specification between all parties, which would cooperate with a particular application running on said host computer;

uploading said service specification into said secure computation environment;

enforcing said service specification with regards to all cooperating parties;

receiving a service request from a requestor, the service request being adapted to contain information about an individual who is not a party of the machine interpretable service specification;

executing secure processing of said service request; and providing notifications as defined in the service specification.

37. (currently amended) An identification method for matching individuals, the method comprising the steps of:

providing at least one host computer adapted to have at least one secure coprocessor operating in a secure computation environment;

operating said at least one host computer to negotiate a machine interpretable contract between all parties, which would cooperate with a particular application running on said host computer;

uploading said contract into said secure computation environment;

enforcing said contract with regards to all cooperating parties;

receiving a service request from a requestor, the service request being adapted to contain information about an individual who is not a party to the machine-interpretable contract;

executing secure processing of said service request; and

providing notifications as defined in the contract.

38. (currently amended) An article of manufacture for use in a multiparty electronic service, comprising a machine readable medium tangibly embodying a program of instructions executable by a machine for implementing a method, the method comprising steps of:

providing at least one host computer adapted to have at least one secure coprocessor operating in a secure computation environment;

operating said at least one host computer to negotiate a machine interpretable service specification between all parties, which would cooperate with a particular application running on said host computer;

uploading said service specification into said secure computation environment;

enforcing said service specification with regards to all cooperating parties;

receiving a service request from a requestor, the service request being adapted to contain information about an individual who is not a party to the machine interpretable service specification;

executing secure processing of said service request; and

providing notifications as defined in the service specification.

39. (currently amended) A program storage device readable by a machine, tangibly embodying a program of instructions executable by the machine to perform methods steps for managing a matching identification service, the method comprising the steps of:

providing at least one host computer adapted to have at least one secure coprocessor operating in a secure computation environment;

operating said at least one host computer to negotiate a machine interpretable service specification between all parties, which would cooperate with a particular application running on said host computer;

uploading said service specification into said secure computation environment;

enforcing said service specification with regards to all cooperating parties;

receiving a service request from a requestor, the service requested being adapted to contain information about an individual who is not a party to the machine interpretable service specification;

executing secure processing of said service request; and

providing notifications as defined in the service specification.

40. (currently amended) An article of manufacture for use in matching individuals, comprising a machine readable medium tangibly embodying a program of instructions executable by a machine for implementing a method, the method comprising steps of:

providing at least one host computer adapted to have at least one secure coprocessor operating in a secure computation environment;

operating said at least one host computer to negotiate a machine interpretable contract between all parties, which would cooperate with a particular application running on said host computer;

uploading said contract into said secure computation environment;

enforcing said contract with regards to all cooperating parties;

receiving a service request from a requestor, the service request being adapted to contain information about an individual who is not a part to the machine interpretable contract;

executing secure processing of said service request; and

providing notifications as defined in the contract.

41. (currently amended) A program storage device readable by a machine, tangibly embodying a program of instructions executable by the machine to perform methods steps for managing a matching identification service, the method comprising the steps of:

providing at least one host computer adapted to have at least one secure co-processor operating in a secure computation environment;

operating said at least one host computer to negotiate a machine interpretable contract between all parties, which would cooperate with a particular application running on said host computer;

uploading said contract into said secure computation environment;

enforcing said contract with regards to all cooperating parties;

receiving a service request from a requestor, the service request being adapted to contain information about an individual who is not a party to machine interpretable contract;

executing secure processing of said service request; and

providing notifications as defined in the contract.

42. (currently amended) A computer-based method for a multiparty electronic service, the method comprising steps of:

implementing on a computer system at least one contract for governing a service between a service provider, a client and at least one other party;

receiving at said service provider a first request from a client, the first request being adapted to contain information about an individual who is not one of the service provider, a client and at least one other party;

sending from said service provider a data request to one of at least one other party;

receiving, at said service provider from said one of at least one other party, a data response in a secure computation environment;

determining, in accordance with said contract, whether a match exists between said first request and said data response;

if a match results from said determining step, providing a notification of said match to said at least one other party.

43. (previously presented) The method of claim 42 further comprises the step of providing said notification even if there is no match as determined in said determining step.

44. (previously presented) The method of claim 43, wherein said step of providing said notification comprises the step of providing a dummy message to said at least one other party.

45. (previously presented) The method of claim 42 further comprises the step of notifying said client that said first request was processed.

46. (previously presented) The method of claim 42 wherein the implementing the at least one contract step comprises the step of assigning a contract ID for any contract that governs a service between the service provider, the client and the at least one other party.

47. (previously presented) The method of claim 42 further comprises the step of executing the previous steps in a contract engine within the secure computation environment.

48. (previously presented) The method of claim 47 further comprises the step of providing a plurality of contract engines coupled to a communication network.

49. (previously presented) The method of claim 42 wherein the determining step comprises the step of performing the determination in a crypto-coprocessor.

50. (currently amended) A computer-based method for a multiparty electronic service, the method comprising steps of:

implementing on a computer system at least one contract for governing a service between a service provider, a client and at least one other party;

determining, in accordance with said contract, whether a match exists between a first request from said client and a data response from one of at least one other party, the first request being adapted to contain information about an individual who is not one of the service provider, a client and at least one other party;

if a match results from said determining step, providing a notification of said match to said at least one other party.

51. (previously presented) The method of claim 50 further comprises the step of providing said notification even if there is no match as determined in said determining step.

52. (previously presented) The method of claim 51, wherein said step of providing said notification comprises the step of providing a dummy message to said at least one other party.

53. (previously presented) The method of claim 50 further comprises the step of notifying said client that said first request was processed.

54. (previously presented) The method of claim 50 wherein the implementing the at least one contract step comprises the step of assigning a contract ID for any contract that governs a service between the service provider, the client and the at least one other party.

55. (currently amended) A computer-based method for managing a matching identification service, the method comprising the steps of:

implementing on a computer system at least one contract having a contract ID for governing said matching identification service between a service provider, a client and at least one other party determining, in accordance with said contract ID, whether a match exists between a first request from said client and a data response from one of at least one other party, the first request being adapted to contain information about an individual who is not one of the service provider, a client and at least one other party;

if a match results from said determining step, providing a notification of said match to said at least one other party.

56. (previously presented) The method of claim 55 further comprises the step of providing said notification even if there is no match as determined in said determining step.

57. (previously presented) The method of claim 56, wherein said step of providing said notification comprises the step of providing a dummy message to said at least one other party.

58. (previously presented) The method of claim 55 further comprises the step of notifying said client that said first request was processed.

59. (currently amended) Apparatus for a multiparty electronic service, the apparatus comprising:

at least one host computer operative to:

maintain and enforce at least one contract for governing a service between a service provider, a client and at least one other party; and

to determine, in accordance with said at least one contract, whether a match exists between a first request from said client and a data response from one of at least one other party, the first request being adapted to contain information about an individual who is not one of the service provider, a client and at least one other party;

said at least one host computer is further operative to provide a notification to said at least one other party if a match results from said determination.

60. (previously presented) The apparatus of claim 59, wherein said at least one host computer is further operative to provide said notification to said at least one other party if no match results from said determination.

61. (previously presented) The apparatus of claim 60, wherein said at least one host computer is further operative to provide a dummy message to said at least one other party.

62. (previously presented) The apparatus of claim 59, wherein said at least one host computer is further operative to provide a notification to said client that said first request was processed.

63. (previously presented) The apparatus of claim 59, wherein said at least one host computer comprises:

a secure computation environment for processing sensitive data;

a network handler for sending and receiving messages to and from said secure computation environment and a network; and

a storage handler to process database requests that come from inside said secure computation environment and retrieves information from a secured database containing said contracts and private information data.

64. (previously presented) The apparatus of claim 59, wherein said at least one host computer is further operative to provide a contract ID for any contract that governs a service between the service provider, the client and the at least one other party.

65. (currently amended) Apparatus for a matching identification service, the apparatus comprising:

at least one host computer operative to:

maintain and enforce at least one contract having a contract ID for governing a service between a service provider, a client and at least one other party;

and to determine, in accordance with said at least one contract, whether a match exists between a first request from said client and a data response from one of at least one other party, the first request being adapted to contain information about an individual who is not one of the service provider, a client and at least one other party;

said at least one host computer is further operative to provide a notification to said at least one other party if a match results from said determination.

66. (previously presented) The apparatus of claim 65, wherein said at least one host computer comprises:

a secure computation environment for processing sensitive data;

a network handler for sending and receiving messages to and from said secure

computation environment and a network; and

a storage handler to process database requests that come from inside said secure computation environment and retrieves information from a secured database containing said contracts and private information data.

67. (previously presented) The apparatus of claim 66, wherein said secure computation environment comprises a contract engine operative to:

handle said first request, conduct a matching task, and provide a respond serving as said notification.

68. (previously presented) The apparatus of claim 65, wherein said at least one host computer is further operative to provide said notification to said at least one other party if no match results from said determination.